

COMBAT ROOTS

Game Design: George Dew

Board & Pieces George Dew

Play Testers: Chris Chambers, Xavier Dew, Phoenix Dew

The older you get, the quicker time passes. Cornerstones in life shift, but the sun still comes up every morning.

Copyright © 2022 Dark City Games

INTRODUCTION

Combat Boots simulates modern small-unit combat. In *Combat Boots*, each player controls infantry, artillery, tanks and aircraft.

COMPONENTS

Board

The board shows the field of battle. Terrain affects fire and movement. Hexagons (hex/hexes) govern movement and indicate distance. Each hex is 50 meters across.

Pieces

Each piece (unit) represents an infantry squad, a machine gun (MG), mortar, field gun, tank, vehicle, or aircraft. Each piece has a rating for Range, Movement, Armament, Firepower, and Survivability.

Armor & Soft Targets

Tanks and halftracks are **armor**. Armor is immune to rifle and MG fire. Infantry, guns, trucks, and aircraft are **soft targets**.

Unit Ratings

Range is the distance in hexes a unit can fire. An underlined range is the number of range bands the unit can fire into. Movement is the number of hexes the unit can move. Armament is the weapon type. Firepower is the number of dice the player rolls when firing. Survivability is the number of dice the player rolls when taking fire.



You can summarize a unit using its Armament, Firepower, and Survivability. This rifle squad can be summarized as **r2/2**.

Armament

Weapons have varying effects on different target types.

a: *Anti-tank* can target armor, as well as soft targets.

aa: *Anti-aircraft* artillery can fire at aircraft.

h: *High-explosive* attacks every unit in the target hex separately. -1 Firepower against armor.

H: An artillery barrage attacks every unit in the target hex *and* all six surrounding hexes separately. -1 Firepower against armor.

m: An MG can fire at two soft targets, or at the same soft target twice.

M: Liquid-cooled MG's can fire at three soft targets, or at the same target up to three times.

r: Rifles can fire at soft targets only.

GAME SEQUENCE

Players alternate turns. The player taking his turn is the **active** player. He moves or fires his units, one at a time.

Unit's Turn

An active unit can move or fire, but not both. Rotate a piece 90° to indicate it has taken its turn. At the end of the active player's turn, rotate pieces back.

Victory

Players alternate turns until one side wins. Victory is defined in each battle description.

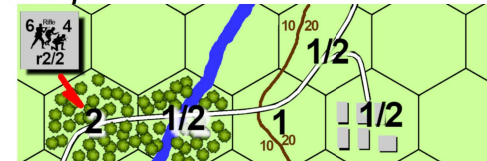
MOVEMENT & TERRAIN

A unit can move a number of hexes up to its Movement. For example, a unit with Movement=4 can move up to four hexes.

Terrain

Some hexes contain difficult terrain. Those hexes cost more Movement to enter. See the Terrain table for details.

Example



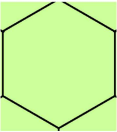
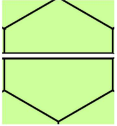
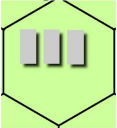
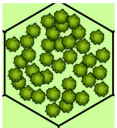
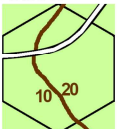
A rifle squad r2/2 spends 2 points moving into a forest. It continues along the forest road, where the movement cost is only 1/2. It continues uphill on the road. Uphill costs 2 points (1 to enter the hex, and +1 for the contour line), but the road halves the cost, making it 1 point. The rifle squad continues along the road on the level, spending 1/2

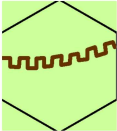
COMBAT ROOTS

points. The unit has spent all 4 Movement points and can move no further. If it could continue into the town to the southeast, it would only cost 1/2 Movement points, since the unit would be traveling along the road.

Cover

When a cover modifier appears, such as "Cover: +1", the target adds +1 to his highest die thrown when fired upon. For example, if a target throws a "5", that "5" (+1) becomes a "6" instead.

Terrain	Cover/Entry Cost
Open 	Cover: None. Movement: 1 to enter.
Road 	Cover: None. Movement: 1/2 point moving along a road on level ground or downhill. 1 MP per elevation line going uphill.
Buildings 	Cover: +1 Movement: 1 to enter.
Forest 	Cover: +1 Movement: 2 to enter.
Elevation 	Cover: None Infantry: +1 MP per contour line uphill.

	Vehicle: +4 MP per contour line uphill (max 2 lines).
Entrenchment 	Cover: +1; also +1 to the target's Survivability. Movement: 1 to enter.

TRANSPORT

Loading Infantry and Guns

A vehicle can carry a single infantry unit or gun. A vehicle can load and move; move and unload; or move. Cargo cannot fire when loading or unloading.

Place the vehicle directly over its cargo to symbolize a loaded vehicle. For stacking purposes, a loaded vehicle counts as one piece. If a loaded vehicle is destroyed, the cargo is destroyed as well.

Infantry Riding Tanks

Infantry riding on tanks are exposed and have a survivability rating of 1.

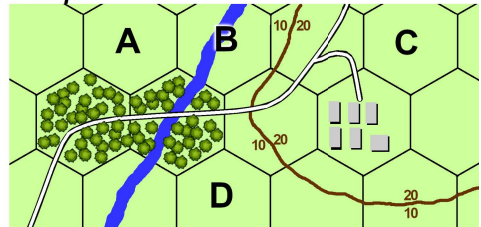
LINE OF SIGHT

Line of Sight (LOS)

Buildings, forests, and hills block LOS. A unit can see into the first hex of a series of building or forest hexes, but no further. A unit can always see adjacent units. Hex edges do not block LOS.

Units in LOS can see each other. If LOS is questionable, measure from the center of one hex to the center of the other.

Example



- A and B can see each other. As can B and C, and B and D. Nothing blocks LOS. Hex edges (B-D) do not block LOS.

• A and D cannot see each other. Nor can C and D. Forests and buildings block LOS.

Friendly Units

Only mortars can fire through friendly units at the same elevation.

ELEVATION

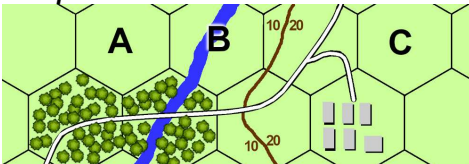
Contour Lines

Contour lines appear in hexes on the game board. Numbers appear on both sides of a contour line. The higher number indicates the uphill side. If both numbers are equal, the line is a ridge. A ridge blocks LOS unless units are adjacent. Units are at the elevation in the middle of the hex.

Line of Sight

Units separated by one contour line can see each other if the intervening line is closer to the higher unit. Units separated by multiple contour lines can see each other if the intervening lines are proportionally closer to the higher unit.

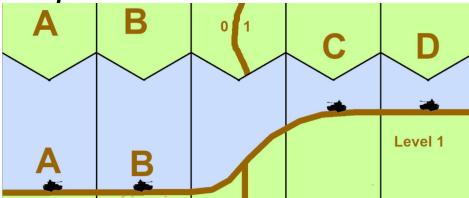
Example



• A can see C because the intervening contour line is closer to C, the higher unit.

• B cannot see C because the intervening contour line is closer to B, the lower unit.

Example



The top half of this diagram shows the board from the top. The bottom half of this diagram shows a cross-section.

• A and C **can** see each other because the contour line is closer to the higher unit C.

• B and D **cannot** see each other because the contour line is closer to the lower unit B.

• B and C, as well as A and D, **can** see each other because the contour lines is midway between the two.

RANGE BANDS

Movement

The board is divided into four range bands. The portion of the board covered with hexagons is all in the first range band.

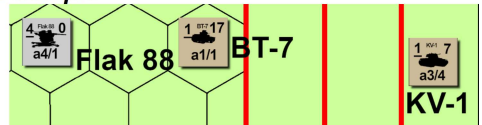
A unit must spend 10 movement to go from one range band to the next. If a unit has less than 10 movement, it can use all its movement to move onto the intervening line, or from a line into a range band.

Firing Range

If a unit's range is underlined, this is the number of range bands the unit can fire into, including its own. For example, a unit with a range of 1 **can only fire (anywhere) into its own range band**. If it has a range of 2, it can fire into the adjacent range band as well, and so on.

A unit with a Range of 1, that rests on a range band dividing line, can only fire at units on the same line. Firing into an adjacent range band would require Range 2.

Example



The Flak88 has a range of 4. It can fire on the BT-7 or the KV-1. The KV-1, with a range of 1, can only fire at foes in the same range band.

FIRE

Firing Conditions

A unit may fire on one target per turn. (MG's can fire at two (m) or three (M).) The target must be in within range, and within a clear line of sight. Mark a unit that has fired by rotating it 90 degrees. A target can receive fire from multiple attackers.

Resolving Fire

The firing unit rolls a number of dice equal to his Firepower rating. The target unit rolls

a number of dice equal to his Survivability rating.

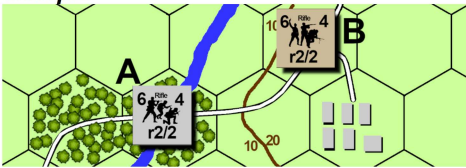
Pin

If the firing unit's highest die beats the target's highest die, the target is pinned. Flip the pinned piece over to its back side. A pinned unit is helpless until it passes a morale check (see Morale). A pinned unit suffering an additional pin is destroyed.

Kill

If the firing unit's two highest dice each beat the target's highest die, the target is destroyed. Remove the piece.

Example



A fires at B at 2-2. A rolls 6, 5. B rolls 5, 4. A's 6 beats B's 5, and B is pinned. Flip B to its back side. B is helpless until rallied.

Example

A fires at B at 2-2. A rolls 6, 5. B rolls 4, 3. Both A's 6 and 5 beat B's 4. B is destroyed.

Point Blank Range

A unit firing on an enemy in the same or adjacent hex throws an additional die.

ROLLING 6'S

When both sides roll 6's, the target is pinned if the firing unit rolls one more 6 than the target. The target is killed if the firing unit rolls two or more 6's than the target.

Example

The firing player rolls three 6's. The target rolls: 6, 5, 4. The attacker has two more 6's than the target. The target is destroyed.

Modifiers

A single die roll can never be greater than 6, even with modifiers. If both sides roll 6's, a player converts one die roll to a 6, for each +1 modifier he has.

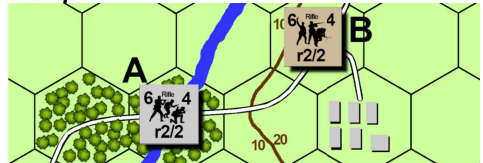
COVER

Cover Modifiers

Cover improves a target's chances of survival. The target unit benefits from the cover rating of his hex (Terrain table).

Cover is not cumulative. A unit in multiple terrain types takes the cover modifier of the most advantageous terrain in the hex.

Example



- B fires on A at 2-2.
- B rolls 6, 5. A rolls 4, 3.
- Without cover, both B's 6 and 5 beat A's 4. A would be destroyed.
- The forest provides +1 cover, adding to A's high roll. This turns A's 4 into a 5.
- B's 6 beats A's 5. A is pinned.
- Flip A over to its back side.

Example

The firing player rolls three 6's. The target rolls: 6, 5, 4. The +1 cover turns one 5 into a six. The attacker has one more 6 than the target. The target is pinned.

STACKED UNITS

Combining Fire

Rifle squads and MG's that occupy the same hex may combine firepower against a target. Tanks, guns, mortars, and aircraft cannot combine fire.

Firepower

The firing units use the cumulative firepower of the units combining fire.

Example

The firing player has a MG team m2/1, and a rifle squad r2/2 in the same space. They combine fire and roll four dice.

Stacked Targets

Infantry units in the same hex may be fired upon individually, or grouped. If grouped, use their cumulative survivability ratings to resolve fire. If grouped, the result applies to all units grouped.

Example

Two rifle squads r2/2 are in the same space. The firing player attacks both units as a group. The target rolls four dice.

Example

A rifle squad r2/2 and MG m2/1 combine fire for a firepower rating of 4. They fire on one of two rifle squads r2/2 in a hex. The attacker fires at 4-2.

Example

A rifle squad r2/2 and MG m2/1 combine fire for a firepower rating of 4. They fire on two of two rifle squads r2/2 in a hex. The attacker fires at 4-4.

Stacking Penalty

For each unit in a target hex exceeding four units, the firing player adds an additional +1 to his die of choice.

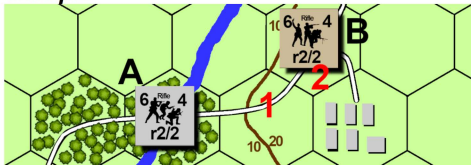
OPPORTUNITY FIRE

Each of the inactive player's units can fire at one target in the active player's turn (a MG can fire at two or three). The target must be within line of sight and range.

Opportunity Fire

Inactive units can fire on moving, loading, or unloading units. Inactive units can continue firing until the target stops moving or is destroyed. A unit having conducted opportunity fire can be rotated 90° as a reminder that it has fired.

Example

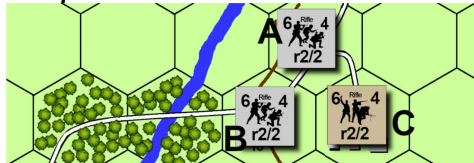


- Squad A moves to space 1. The inactive squad at B fires at A at 3-2 (point blank).
- A survives and moves into B's hex. B fires again at A at 3-2 (point blank).

SAME-HEX COMBAT

Opposing units in the same hex can only fire on each other. Outsiders cannot fire into the hex. The firing unit throws an extra die for point blank. Targets get no cover modifiers, and a **pin** kills.

Example



- A enters C's hex. C fires at 3-2 (point blank). Cover is ignored, and a pin kills. C rolls 6, 5, 4. A rolls 5, 4. C's 6 beats A's 5, destroying A.

HAND-TO-HAND COMBAT (HTH)

After moving, the active player can initiate HTH combat for units in enemy hexes.

Rounds

Players alternate rounds until one side is destroyed or retreats. Multiple rounds can take place in the active player's turn.

Calculate Odds

The attacker totals the survivability of his pieces in the space. He throws this number of dice. The defender does the same.

Resolution

Compare players' top dice, in descending order. For each comparison, the loser removes one unit. If tied, both remove one. Do a number of comparisons equal to the number of units on the smaller side.

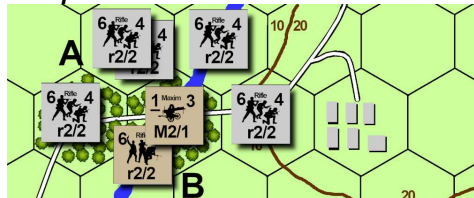
Next Round

The next player decides to fight or flee. If he fights, conduct another round. If he flees, his units move away from their enemy up to their full movement. Weapon pieces, such as MG's and mortars, cannot flee.

Pinned Units

Pinned units alone with unpinned enemies, are destroyed. If unpinned friendly units are in the same hex, the pinned units remain.

Example



- Active player A moves 5 squads into B's hex. B has a rifle squad and a MG. In

opportunity fire, B destroys two squads. A begins HTH with three squads (r2/2). B begins HTH with a rifle squad (r2/2) and MG (M2/1).

- A rolls 6 dice. B rolls 3.
- A rolls a 6, 4, 4, 3, 2, 1. B rolls a 5, 5, 4.
- The smaller side has two units.

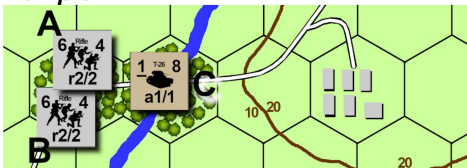
Compare the two top rolls.

- A's 6 beats B's 5. B removes the MG.
- B's 5 beats A's 4. A removes one squad.
- The round is over. A has two squads and B has one. B flees.
- If B had fought another round, he would roll two dice, and A would roll four.

INFANTRY ASSAULTING ARMOR

Infantry can attack armor in the same hex. The armor unit can conduct opportunity fire on *one* target, using its integrated MG (m2). If the infantry survives, it attacks the AFV using its firepower rating. The infantry does not roll an extra die. The AFV gets no cover modifiers, and a *pin* kills.

Example



- Squads A and B assault a lone tank C.
- Squad A r2/2 enters the tank's hex. The tank fires on A with opportunity fire at 3-2. C rolls 6, 5, 4. A rolls 5, 4. C's 6 beats A's 5, destroying A.
- B r2/2 enters the C's space. C already used opportunity fire and cannot fire on B.
- B attacks C at 2-1.
- B rolls 4, 3. C rolls 3. B's 4 beats C's 3, destroying the tank.

Mixed Target Types

If there is infantry in the same space with armor, the active player must first destroy the infantry before attacking the armor.

TANK OVERRUN

A tank stops in the hex it overruns. It can fire its main gun or its integrated MG (m2).

Example

Player A's tank a2/2 overruns B's infantry r2/2. A rolls 3 dice (point blank) and B rolls 2. A rolls 6, 5, 4; B rolls 5, 4. A's 6 beats B's 5, destroying B (pin kills in same hex).

ARTILLERY

Fire Missions

During his turn, the active player calls in a fire mission on any hex to which he has a LOS. Artillery attacks each unit in the target space individually, as well as each unit in each of the surrounding six spaces. Artillery is "H" type armament (-1 Firepower against armor).

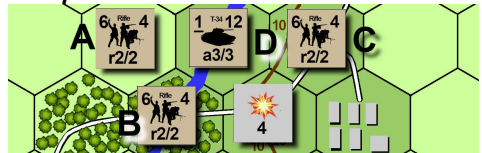
Resolving Fire

The active player rolls one die. If the die roll is odd, the artillery lands on target, and the active player resolves fire. If the die is even, artillery hits the target on the active player's following turn.

Duration

Artillery lasts one full turn (through both player's turns). Artillery in the non-active player's turn fires as opportunity fire, or after the active player's pieces have fired.

Example



Artillery lands with firepower=4. A is out the blast radius. The squad at B, the tank at D, and the squad at C, all take fire. The active player rolls an odd die, and the artillery lands on target.

- Artillery attacks B at 4-2. Artillery rolls: 6, 5, 4, 3. The squad rolls: 5, 4. The forest adds +1 to the squad's high roll, making the 5 a 6. The artillery is ineffective.
- Artillery attacks C at 4-2. Artillery rolls: 5, 4, 3, 2. The squad rolls: 3, 2. The 5 and 4 both beat the squad's 3, destroying it.
- Artillery attacks the tank at D at 3-3. (-1 firepower against armor.) Artillery rolls: 4, 3, 2. Tank rolls: 3, 2, 1. Artillery's 4 beats the tank's 3, and the tank is pinned.

MORALE

Morale Check

At the end of his turn, the active player checks morale. Morale is defined in each scenario. The active player rolls one die for each pinned unit. If the die is his morale or less, the unit rallies. Flip that piece over to its front side. It can now move and fire.

Morale Failure

If a unit fails a morale check, it remains pinned. If in the open, it immediately flees at full movement, away from its enemy. If it reaches cover, it stops. It remains pinned.

Example

The active player (morale = 4) has two pinned units in the open. He rolls 4 for one, 5 for the other. The unit rolling 4 rallies and flips over to its front side. The unit rolling 5 flees at full movement away from its enemy.


LEADERS

A leader adds his modifier to every roll for every unit in his hex. This affects outgoing and incoming fire, and morale checks. If all units in the hex are killed, the leader is too.

AIR STRIKES

Aircraft

Speed appears in the upper left-hand corner. Maneuverability is in the upper right-hand corner. Armament, firepower, and survivability appear on the bottom row.

Speed	3+	3	Maneuver
			
Armament	m3/2		
Firepower / Survivability			

Deployment

Place the aircraft on top of its target. It uses ordnance during its initial attack. After its main attack, the aircraft can make a total of 5 strafing runs. After that, the aircraft is removed from the board.

Ground Fire

Only units with **aa** armament can use opportunity fire on an aircraft. Aircraft

receiving ground fire roll an additional survivability die, and add +1 to their highest die.

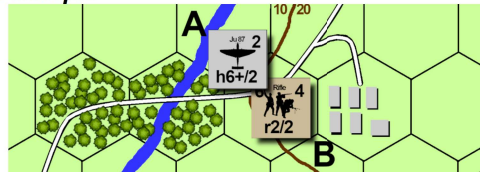
Pinned Result

If ground fire gets a "pinned" result, the aircraft is damaged. The aircraft can finish its current attack, but must leave the battle as soon as the attack is complete.

Destroyed Result

If an aircraft is destroyed, remove it immediately. It cannot complete its attack.

Example



- The dive-bomber at A h6+/2 drops ordnance h6+ on the infantry at B r2/2.
- A bombs B at 6-2. A rolls: 6, 6, 5, 4, 3, 2. B rolls a 3, and a 2.
- The aircraft's plus (+) makes A's 5 into a 6. Both the aircraft's 6's beat the infantry's 3, and the infantry is destroyed.
- In the next five turns, A can strafe (m2) targets anywhere on the board. However, in each case, A would have to survive ground fire.

DOG FIGHTS

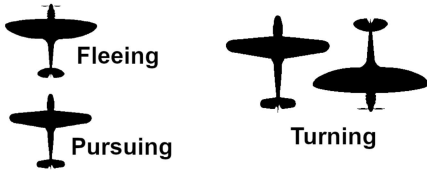
Air-to-air battles are fought off-board, on any surface. In the active player's turn, each of his aircraft can either maneuver, speed, disengage, or fire. An aircraft can only depart combat if disengaged.

Relative Positions

An aircraft can be in one of four positions relative to its foes. The aircraft can be pursuing, fleeing, turning, or disengaged.

- Pursuing: Aircraft follows its foe.
- Fleeing: Aircraft leads its foe.
- Turning: Aircraft are side-by-side, facing opposite directions.
- Disengaged: Aircraft is away from foes.

Example



MANEUVER & SPEED

Resolving Maneuver

Players roll a number of dice equal to their aircraft's maneuver rating. The player rolling the highest die wins the maneuver.

Resolving Speed

Players roll a number of dice equal to their aircraft's speed rating. The player rolling the highest single die wins speed.

OPTIONS

Fleeing

A fleeing aircraft can either maneuver against its pursuit, or speed away. A fleeing aircraft winning maneuver can either disengage, or take the turning position against its pursuit. A fleeing aircraft winning speed can disengage from its pursuit.

Example: Maneuver

Aircraft A (M=3) flees aircraft B (M=2). A rolls 5, 4, 3. Aircraft B rolls 3, 2. A wins the maneuver, and turns against B.

Example: Speed

Aircraft A (S=3) flees aircraft B (S=2). A rolls: 6, 5, 4. B rolls: 4, 3. A wins speed, and disengages from B.

Turning

A turning aircraft must maneuver or speed against its turning foe. The winner of the maneuver either pursues his foe, or disengages. The winner of speed either disengages, or remains turning.

Example: Maneuver

A (M=3) turns against B (M=2). A rolls: 6, 5, 4. B rolls: 3, 2. A wins and pursues B.

Example: Speed

A (S=3) turns against B (S=2). A rolls: 6, 5, 4. B rolls: 3, 2. A wins and disengages.

Pursuing

A pursuing aircraft can either fire on its foe, or automatically disengage. Only one aircraft can pursue a fleeing foe. An aircraft pursuing a target while fleeing a foe must decide whether to fire on his target, or maneuver/speed away from his pursuit. If he maneuvers against, or speeds from his pursuit, his target automatically disengages.

Disengaged

Disengaged aircraft may exit the battle, maneuver/speed against a disengaged foe, or pursue an engaged foe.

If a disengaged aircraft wins a maneuver or speed roll, it takes the pursuing position. If the opposing aircraft wins, it can pursue or disengage. On a tie, both aircraft are turning.

Example 1

A and B are disengaged. A maneuvers on B and wins. A now pursues B.

Example 2

A and B are disengaged. A maneuvers on B, but loses the maneuver. B pursues A.

Example 3

A and B are disengaged. A maneuvers on B, but the aircraft tie their maneuver rolls. A and B are now turning.

Example 4

A and B are disengaged. A wins speed against B. A pursues B.

Example 5

A is disengaged. He elects to leave the battle. Remove the piece from the board.

Unopposed Maneuver

An aircraft maneuvering against an engaged opponent automatically takes the pursuit position. (An aircraft can only be pursued by one foe.)

FIRE

Resolving Fire

The attacker rolls as many dice as his firepower rating. The target unit rolls as many dice as his survivability rating.

Damage

If the attacker's highest die beats the target's highest die, the target is damaged.

The target can complete its following turn, but leaves the board immediately after.

Kill

If the attacker's two highest dice each individually beat the target's highest die, the target is destroyed. Remove the target from the board.

FIRING RUN

Firing Run

An active disengaged (or even a pursued aircraft) can make a firing run on another aircraft. He follows the FIRE rules, but his target throws one additional die. After the firing run, the aircraft are disengaged relative to each other.

Example

Aircraft A makes a firing run on aircraft B. Aircraft A has a firepower of 3, B has a survivability of 2. In a firing run, the target rolls an extra die. Both roll three dice.

HEAD-ON ATTACK

Some battles may specify that opposing aircraft meet head on. In that case, on the first turn of a dogfight, an attacker may make a head-on attack. Each aircraft rolls a number of dice equaling the sum of its firepower and survivability.

Example

Aircraft A 3/2 makes a head-on-attack on aircraft B 2/1. A rolls 5 dice, B rolls 3. A rolls 6, 5, 4, 3, 2. B rolls 5, 4, 3. B is damaged.

SOLITAIRE

If playing solitaire, the battle specifies which tactic your enemy will use. Tactics include the following:

Advance

Attacking units advance towards your forces until they take fire. Upon taking fire, they "go to ground" and end their turn. They resume their advance on their following turn.

Engage

Attacking units move to cover, and fire at your closest units until you are destroyed.

Overrun

Attacking units ignore gunfire and advance at full movement to destroy you in HTH combat. They attack your closest unit first.

Defend

(1) Defending units fire at your forces as soon as you come into range. Defenders continue firing until you are pinned.

(2) If you move next to a defender and you outnumber him, he checks morale. On passing, he holds his position. On failing, he flees away at full movement, stopping at cover.

GETTING STARTED

- Select a battle.
 - Choose sides.
 - Set up the board and pieces.
 - The first player takes his turn.
 - Players alternate until one side wins.
- 20220325